

# How to find 24K DRG and DEM maps

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## 1 Find the location of interest map coordinates

Using Google Maps or Google Earth can help find the latitude and longitude. It's also helpful to find the location's county name.

## 2 Locate the 24K map name

Go to <http://www.mapmart.com> and search for the 1:24,000 topographic map name of the location of interest.

Turn on the **Display Coordinates** option to correlate the coordinates found in step 1 to the map. Search for the map using those coordinates. Zoom in as necessary to expose the map name. Note the map name.

*Example:*

*Mount Hood South* → lon=-121.7, lat=45.3

*Mount Saint Helens* → lon=-122.2, lat=46.2

## 3 Look up the coded 24K map name

Go to <http://data.geocomm.com/dem/demdownload.html>. It will be necessary to log in to download data.

1. Navigate down to the state and county of the location of interest
2. Select the **Digital Elevation Models (DEM) - 24K** link
3. Find the map name with the parenthesized coded map names
4. Download the two 10K SDTS DEM files (TAR.GZ and .TXT file)
5. Note the coded map name for later use

*Example:*

*Mount Hood South* → 45121c6 → 1695159.DEM.SDTS.TAR.GZ (10 meter), 1695159.DEM.SDTS.TXT

*Mount Saint Helens* → 46122b2 → 1652948.DEM.SDTS.TAR.GZ (10 meter), 1652948.DEM.SDTS.TXT

## 4 Form the map TIFF URL and download

Go to archive site [http://www.archive.org/details/maps\\_usgs](http://www.archive.org/details/maps_usgs) and get the download data page of any map in the vicinity. That page will serve as a prototype to find the target map.

1. Select the state
2. Select any map in the state which links to a download data page
3. Change the URL to match the coded map name found in step 3 and go to that download data page
4. Download the huge **Multi Page Processed TIFF**

Alternatively, form the TIFF direct download URL and download it.

*Example:*

*Mount Hood South* (45121c6) → [http://www.archive.org/download/usgs\\_drg\\_or\\_45121\\_c6/o45121c6.tif](http://www.archive.org/download/usgs_drg_or_45121_c6/o45121c6.tif)

*Mount Saint Helens* (46122b2) → [http://www.archive.org/download/usgs\\_drg\\_or\\_461221\\_b2/o46122b2.tif](http://www.archive.org/download/usgs_drg_or_461221_b2/o46122b2.tif)

## 5 Create a shaded topo map using DEM and DRG data

Download 3DEM from <http://www.visualizationsoftware.com/3dem>

1. Start 3DEM
2. Select USGS DEM file type
3. Select the TAR.GZ file downloaded in step 3 and a shaded terrain map should become visible
4. Select **Operation / F4 Apply/Remove Map Overlay** or press F4
5. Click the **Load** button
6. Select the TIF file downloaded in step 4
7. The TIF file will be loaded after a few seconds
8. Click the **Accept** button
9. Enter a trim file name (like trim.tif) that probably has no future use
10. The entire shaded overlay image will be rendered after a few seconds
11. Optionally, select **Operation / F8 Select Smaller Area** or press F8
12. Optionally, use the mouse to block off a zoomed view of the map and then press Enter
13. Select **File / Save Map Image** and choose one of the output formats and then the file name